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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/798,767	03/11/2004	Michael L. Britt	979619010004	6439

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05/31/2007

EXAMINER
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MANOHARAN, VIRGINIA

ART UNIT	PAPER NUMBER
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1764

MAIL DATE	DELIVERY MODE
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05/31/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/798,767	Applicant(s) BRITT, MICHAEL L.	
	Examiner Virginia Manoharan	Art Unit 1764	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 March 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 9-19 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 9-19 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

The FINALITY of the rejection of the last Office action, dated March 6, 2007 is withdrawn in view of new rejection(s), indicated below.

Claim 14 is objected to because the used of a slash such as solvent/oil is improper.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 9-15 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walters et al (5,980,964) and Haefele et al (5,998,640).

Walters et al discloses an apparatus comprising in combination: a reservoir (90) corresponding to the claimed reservoir for holding a solvent liquid; an extraction vessel (16) corresponding to the claimed extraction tank for flowing the solvent liquid through an oil containing material for the solvent to extract oil from the material to yield a mixture of the solvent and the oil; an oil /solvent separator (26) corresponding to the claimed distillation tank for distilling off the solvent from the mixture as a solvent vapor as claimed in claim 9 . See e.g., Fig. 1, and col. 3, lines 40-64. Walters further discloses or renders obvious the claimed " thermal drive apparatus configured to thermally drive the solvent vapor from the distillation tank back to the reservoir by producing a temperature in the distillation tank that is high enough to evaporate the solvent and a temperature at

Art Unit: 1764

the reservoir that is low enough to condense the solvent". See e.g., col. 3, lines 64-67, and col.5, lines 50-59. Haefele discloses basically similar structural elements as above, and further discloses the claimed "pump configured to pump the solvent liquid from the reservoir to the extraction tank". Note col. 7, lines 59-66 through col. 8, lines 1-5. To combine the references would have been obvious to one of ordinary skill in the art inasmuch as both references are directed to the same processing environment, i.e., to solvent/oil extraction/separation processing. The "oil collection tank connected to both the distillation tank of the first system and the distillation tank of the second system for collecting the oil from both distillation tanks" as further claimed in claim 14, is deemed to be an obvious variation of the single oil collector for a single distillation column of the prior art, e.g., to Haefele at col. 3, lines 61-62 or col. 7, lines 55-56. It is within the purview of an artisan to install an oil collector for each column, or one collector for both columns for economic reasons. This is not novel nor unobvious. A matter of additive. [Walters in fact teaches at col. 4, lines 34-39, that of course if too much oil still remains after first extraction then it may be subjected to one or more additional extraction cycles]. The used of a purge tank when needed is known as taught e.g., at col. 4, lines 52-64 of Haefele.

Claims 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Walters et al (5,980,964) and Haefele et al (5,998,640) and with or without Marks et al (5,308,452).

The claimed "means for replacing the solvent in the system with a second solvent while the system remains closed to the atmosphere" is taught by Marks. See col. 13, lines 25-

Art Unit: 1764

29. To incorporate Marks' teaching supra to the system of Walters and Haefele would have been obvious to one of ordinary skill in the art required a art since Haefele suggests that if additional solvent is required for make up a solvent storage tank 64 is provided, and also for the advantage taught in the abstract of the Marks reference.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

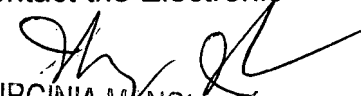
- a). Stothers discloses a thermodynamic system.
- b). Gray et al discloses a solvent cleaning system.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to V. Manoharan whose telephone number is (571) 272-1450.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola can be reached on (571) 272-1444.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
VIRGINIA MANOHARAN  
PRIMARY EXAMINER  
ART UNIT 128, 1764